An Introduction to the Study of the Diseases of the Nervous System. By THOS. GRAINGER STEWART, M.D., Professor of the Practice of Physic and of Clinical Medicine, University of Edinburgh, etc., etc. Bell and Bradfute, Edinburgh, 1884, xvi., 237.

Prof. Grainger Stewart is well known as a brilliant lecturer and a profound writer upon general medicine. It was hardly to be expected, however, that one whose interests are so general, should display such a minute knowledge of neurology as is evident in the pages of this work.

The advances in the anatomy and physiology of the nervous system have been so rapid of late that a view of the subject entirely different from that presented in the older books has become necessary in order to introduce the student to the study of nervous diseases. Methods of teaching the anatomy of the brain have been perfected which are superseding the former system, and the student is now taught to trace tracts through the central nervous system, where formerly he learned merely to distinguish masses of white from masses of gray matter. Knowing the course and function of a given tract, he is then able to locate a lesion which interferes with the function. The division of such tracts into association and projection systems, first proposed by Meynert, is steadily gaining recognition, and complex symptoms, partly mental, partly physical, are being made clear by a study of the function of nerve cells and the course of nerve fibres. The physiology of the brain is another department of neurology in which progress has been equally rapid ; and as the day approaches when cerebral localization is to become the basis for cerebral surgery, a familiarity with its interesting facts and problems is indispensable to all medical students. It is not to be wondered at, therefore, that in beginning a course of lectures upon nervous diseases, Prof. Stewart should have found it necessary to introduce the subject by a review of some of the advances in these departments. The summary which he gives in the first seventy pages is concise and clear. It puts the student in possession of just those facts which he needs, without burdening him with disputed theories. The understanding of a somewhat complex subject is greatly aided by diagrams and photographs ; the execution of the latter, however, being less satisfactory than that of the former. This portion of the book can be recommended to those who have not the time or inclination to search for the facts in the original sources.

The sensory and motor functions are next considered, and in connection with an explanation of the physiology of each organ, based upon its anatomy, there is to be found a discussion of the disturbances of function which occur in the course of nervous disease. Here the wide clinical experience of the author enables him to relate interesting instances of abnormal conditions, not with the minuteness of a detailed case, but with an easy reference which never fails to hold the attention. The description of disturbances of vision may be selected as an example. Defects in

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the visual field, with their anatomical causes, color-blindness, the varieties of dimness of vision, alterations in the pupil, the nervous symptoms produced by myopia, etc., are clearly discussed, and the lecture ends with a careful description of the retinal changes occurring in optic-nerve atrophy, and in optic neuritis, illustrated by eight colored plates taken from Liebreich's Atlas. Eye symptoms are so frequently observed in the course of nervous diseases, and are so important as points of diagnosis, that they deserve the space devoted to them, and the symptoms are here presented in such simple language that one does not need to be a specialist to understand them. In the lecture upon motor functions, the causation of various forms of paralysis is discussed, and the points of differential diagnosis between the different varieties are summarized. The subject of electricity in diagnosis is clearly presented—the author following closely the statements of Erb.

The chapter upon trophic and vaso-motor functions is especially satisfactory. Attention has recently been directed to the changes in nutrition and appearance of the skin, hair, nails, muscles, bones, and joints which develop in the course of various forms of myelitis and in locomotor ataxia. The numerous articles scattered through the foreign journals are not easily accessible to the general practitioner, and therefore this summary of the facts hitherto established will be of great service. A number of interesting cases are also reported, which make the lecture a valuable contribution to the subject.

It is something of a surprise to find a Scotchman passing over the psychological side of medicine without an elaborate discussion of the connection of mind and matter. The students at Edinburgh can attend, it is true, the profound lectures of Prof. Calderwood,—the distinguished successor of Sir William Hamilton, from whom there can be no lack of instruction as to the relations of mind and brain. It would have added, however, to the attractiveness of this volume, as well as to its completeness, if Prof. Stewart had devoted more space to the subject of mental symptoms. There are many facts connected with the subject of aphasia, for example, which might have received a fuller discussion. The varieties of this disorder are, it is true, illustrated by interesting cases graphically presented, but there is wanting a clear division and classification of the various forms—such as has recently been given by Lichtheim. Prof. Stewart's diagrammatic scheme, in explanation of aphasia, is original and ingenious. It is questionable, however, whether the intelligence- and will-centres are to be separated, and whether the known symptoms cannot all be explained without the existence of a will-centre, independent of the speech- and writing-centres. It is certainly incorrect to trace the tract from the ideational centre to the speech-centre through the word-hearing-centre, as Kussmaul does, inasmuch as the latter may be separated from the former without impairing the power of voluntary speech. This error Stewart avoids. An interesting case of one form of paraphasia is related by the author, as follows :

"I was one day demonstrating, in the clinical class, a case of aphasia. He had failed to repeat words which were said in his hearing. I said to him: 'Say "No."' He made a great effort, bringing many muscles into play in his attempt to do as I wished. Then he found it was hopeless, and, giving up the attempt, shook his head and said 'No.'" This is a good example of the aphasia of conduction of Wernicke, in which both sensory and motor speech-centres were normal, but the tract joining them was impaired. Repetition of a spoken word was impossible, but volitional language could be used. This is a condition which Kussmaul's diagram does not cover, but which Stewart's may cover, if we trace a tract from the intelligence-centre directly to the speech-centre. But his explanation of the case, as one of automatic speech, is hardly adequate. The existence of an "intelligence-centre" is necessary upon the diagram, and the statement is made that its seat is unknown, but had it been added that it must be used to represent the assemblage of memory pictures which are associated together to form a unit, and therefore that it has no single location, the author would have safely avoided the extreme materialistic position which may now be ascribed to him. It is perhaps unjust to demand an exhaustive discussion of aphasia in a book of this kind. It is to be hoped that the subject may form one of the series of Clinical Lectures on important symptoms which the professor is now publishing, since it is evident that his observations upon such cases have been numerous and carefully made. The chapter is an entertaining one, but would have gained by increased length.

The treatment of nervous diseases is briefly alluded to in closing. Here, too, Prof. Stewart has been too concise. It is true that the majority of practitioners are skeptical upon this subject, and look with suspicion at statements of remarkable results. But the experience of a well-known clinician is of great value, and we could have wished for more than a list of the drugs which the professor has found of use. The statements regarding the use of electricity are definite, and the rules for the use of the faradic and galvanic currents will be of service to those who hesitate between the two, not knowing when to use either. The author has less confidence in the use of the cautery than the Germans and French have, and upon this point we must incline to the Continental view. Nor can we admit that in spinal curvatures the clumsy and heavy apparatus of the English makers is to be preferred to the Sayre jacket when that is skilfully applied. Trephining is recommended in cases of Jacksonian epilepsy and in cases of an increase of intracranial pressure from tumors or chronic hydrocephalus, for the relief of the severe headache attendant upon that condition.

The book is certainly an admirable one, and will be found of much value by the student or the practitioner as an introduction to the more extensive works of Ross or Erb. It does not deal with the various forms of nervous disease, but enables one to study those forms with more profit and interest. M. A. S.